

2008 Centre County Planning Opportunities

Land Use

Centre County Comprehensive Plan – Phase II Implementation and Strategies

Introduction

In 2003, the Centre County Board of Commissioners adopted an updated Comprehensive Plan which included background studies, inventories of existing conditions, goals, and recommendations. These recommendations, revised and updated, continue to serve as a vision and a general direction for policy and community improvement. Those specific to **land use** will be discussed here along with implementation tools to achieve the recommendations. For more detailed background information please refer to the 2003 Comprehensive Plan available on the Centre County Planning and Community Development webpage at: <http://www.co.centre.pa.us/planning/compplan/default.asp#county>



The images above depict part of the land use data along the Benner Pike in Benner and Spring Townships as it appeared in 2002 (left) and in 2008 (right).

The Keystone Principles

In 2005, Pennsylvania adopted the "Keystone Principles for Growth, Investment and Resource Conservation", a set of principles that have focused Pennsylvania on reinvestment and reuse of its assets.

Initially intended for state agencies, these principles are becoming embraced by local governments as a tool to guide local decisions and have become adopted into county comprehensive plans.

- Redevelop first
- Provide efficient infrastructure
- Concentrate development
- Increase job opportunities
- Foster sustainable businesses
- Restore and enhance the environment
- Enhance recreational and heritage resources
- Expand housing opportunities
- Plan regionally and implement locally
- Be fair

This plan update recommends county-wide adoption of these principles.

County-wide Planning Goals

Adopted 2003

#1 — Identify, preserve, enhance and monitor agricultural resources.

#2 — Identify, preserve, and monitor environmental and natural resources.

#3 — Preserve historic and cultural resources.

#4 — Ensure decent, safe, sanitary and affordable housing in suitable living surroundings, compatible with the environment for all individuals.

#5 — Appropriately locate and maintain existing and proposed community facilities, utilities, and services for all residents.

#6 — Identify and promote economic development initiatives to maintain and grow a diverse economic base in each of the County's planning regions.

Current Trends and Considerations:



Natural gas well drilling site on Sterling Run Gun Club lands in Burnside Township,

The county's natural resources have long provided the impetus for local business and industry. Early settlers timbered forests and mined clay and ores; surface mining remained a strong resource-based industry throughout much of the 20th century. Today, with advances in drilling technology and the likelihood that millions of cubic feet of natural gas reserves remain untapped throughout the Marcellus Shale formation, there is growing interest from national drilling companies that are looking to explore the northern tier of the county. Land uses related to mining and mineral

extraction are forecasted to grow — in number and in acres. In January 2010, the Planning and Community Development Office prepared a report on Marcellus Shale drilling activity for the board of commissioners. The report cited 9 active natural gas well sites, 30 permitted well sites, and close to 100 planned sites. In 2008, there were approximately 745 acres of land devoted to gas wells. Typically an existing natural gas well site is about 1 acre in size. New drilling equipment, which can be moved between drill sites across a common drilling area, also known as a pad, requires up to

5 times the area of older well sites. The economic benefits and the potential environmental problems related to gas well drilling have yet to be measured since this topic is still in infancy at the county level. However, a Task Force consisting of persons from various public and private sectors was formed in early 2010 to monitor drilling activities focusing on Marcellus Shale. For updates regarding this topic please visit the county's website at: <http://www.co.centre.pa.us/151.asp#marcellus>

Forecasting residential growth will continue to be a priority. Part of the Growth Forecasting and Travel Demand Model, a project spearheaded by the Centre Regional Planning Agency, identified areas where new residential developments are expected to be built. The Nittany Valley Region, which includes the municipalities of Bellefonte Borough and the townships of Benner, Marion, Spring and Walker, is expected to have the second highest

residential growth rate behind the Centre Region. In 2009, planning staff prepared base mapping for the Bellefonte Area School District which identified up to 7 new subdivisions that could include as many as 2,200 lots. The growth forecasting project time frame is through the end of 2040. However, the residential numbers generated give some indication of future population, school enrollment numbers, where to expand water and sewer service, public

transportation expansion, and how the tax base structures of municipalities will change. The Penns Valley Region is also forecasted to see continued residential land use growth but the average number of lots per subdivision is expected to be much smaller. For information regarding growth forecasts, please visit the Metropolitan Planning Organization's website at: <http://www.ccmpo.net/GrowthForecasts2040.htm>

More information regarding forecasted residential growth and population projections will be available through the Centre County Office of Planning and Community Development in Summer of 2010.



Mass transit and regional bus services to State College are in demand by commuters as far away as Altoona and Lock Haven.

Although transportation is not always thought of as a land use, access to public bus transportation, efficient highways, and the proximity of land to interchanges, is a factor in **which** categories of land use occur *where*. The completion of the Interstate 99/US 220 corridor, along with planned high-speed and local access interchanges to Interstate 80, will create a connection across Centre County in which

people, goods and services can be transported quickly and safely. Areas of the county which were once only accessible by two-lane rural roads will be a short distance from a major highway. Residential growth is expected to occur in areas close to these new roads over the next 10 to 20 years. For people who work in the State College area, living outside of the Centre Region will be more

likely as workers' commute times will be reduced. The likelihood that commercial growth will occur next to or near new road interchanges is forecasted. Please visit the Centre County Metropolitan Organization's Long Range Transportation Plan at <http://www.ccmpo.net> for a list of transportation projects county-wide.

< The Land Use Survey 2008

Purpose, Function and Methodology

The Centre County land use survey has been completed, on average, every 5 years since 1975. The previous survey was completed in 2002. The purpose of the land use survey is to record how land is being used and for what purpose, how land uses have changed from survey-to-survey, and the survey is used, in part, to forecast future land use changes. The survey functions as both a historical document but also as a planning tool to assist municipalities with both localized and regional land use changes, drafting zoning ordinances, and sighting future development.

The land use survey, prior to the 1990s, was a very rudimentary and time-consuming task. Topographic maps, which distinguish forested and open areas, were used to establish base line data. Other land uses were hand-drawn onto the topographic maps using a variety of colored pencils to represent different land use categories. Planners dedicated many hours in the field to verify what land uses were occurring at certain locations and then translated their findings onto the topographic base maps. Although early methods of land use surveying were completed without the use of computers, the acres captured and presented are comparable to acres we record today using more modern survey methods.

In the mid-1990s, geographic information systems (GIS) were introduced which allowed planners and technicians to digitally manipulate land use data. Digital tax parcel boundary data was used as base line data and was geo-referenced against aerial orthophotography (photography that has been spatially corrected to remove horizontal shifts due to changes in vertical elevation). The 1995 land use survey was the first year aerial photography was available. The imagery proved to be an invaluable tool in completing the land use survey; photography was first referenced to identify what land use was occurring at remote or inaccessible locations instead of having to field verify all areas of the county.

Once the land use data was compiled, GIS software calculated land use acres quickly and accurately. The data was stored in a central location and could be retrieved at any time. For the land use surveys completed in 1995, 2002 and 2008, land use data changes were easily comparable between all 3 years because each dataset could be viewed as separate layers and significant land use changes were easily seen. Plus, each previous land use data set served as the base line data for upcoming land use surveys.

The most notable changes to the land use survey methodology came with the 2008 land use survey. The method of land use capture for the transportation corridors and the urban forested areas changed. The transportation corridors were digitally drawn to show both the hard-surface roads and the permeable medians in-between. In the more suburban areas of the county, specifically within the Centre Region, forested areas were digitally captured and identified as 'urban forest'. The new methodology did significantly impact how the land use acres for transportation and forests were calculated, and the methodology had an impact on the resulting acres for residential land uses. Overall, however, the 2008 land use survey is by far the most accurate representation of what land use types are occurring throughout Centre County.

< The Land Use Survey 2008

County-wide land use by category and subcategory

The Centre County land use survey catalogs land use types by both *category* and *subcategory*. The purpose of assigning both a category and subcategory is to better clarify the specific type of land use occurring. By using a subcategory we can record if the land is being used as a residence, for example, if it is a single family home, a townhouse, or a duplex. The more specific the land use survey is in describing land use categories, the more specific those documents based on the land use data will be. For example, breaking out heavy industrial from light industrial will aid municipal officials with zoning ordinances which are to be applied to either a light or heavy industry. All of the land use categories and applicable subcategories are listed in the table below.

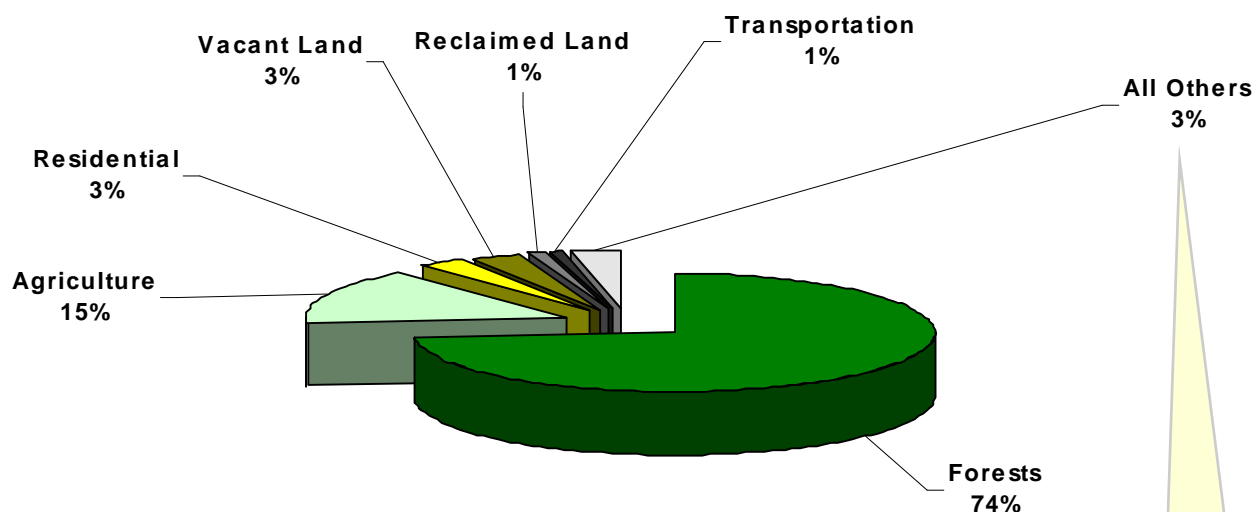


| CATEGORY | SUBCATEGORY |
|------------------------|--|
| Agriculture | |
| Commercial | Heavy Commercial, Retail, Services |
| Communications | Cellular Towers, Telephone, Television, Radio |
| Forests | Open Space, Urban |
| Industrial | Heavy, Light |
| Mined Land | Gas Wells, Quarry, Strip Mine |
| Mixed Use | M1 (Residential-Commercial), M2 (Mixed Commercial) |
| Public or Semi-Public | Churches and Cemeteries, Education, Government, Services & Institutions |
| Reclaimed Land | |
| Recreation | |
| Residential | Single Family Dwelling, Two to Four Family Residence, Multi-Family Residence, Mobile/Modular Homes |
| Transportation | Airports, Medians or Rights-of-Way, Parking Lots, Railways, Roads, Terminals |
| Utility | Pipe Line, Power Generating Station, Power Line, Solid Waste Processing or Disposal, Water Utility |
| Vacant Structures | Commercial, Industrial, Public/Semi-Public, Residential |
| Vacant and Unused Land | |
| Water | |

< The Land Use Survey 2008

Centre County is approximately 712,000 acres (1,112 square miles) in land area. Much of Centre County can be described as *rural*. Forest lands cover three-quarters of the county making it the largest land use category based on acreage (516,717 acres). Agricultural land, for the purposes of this survey is in pasture or crop rotation, covers approximately 108,344 acres or 15% of the landscape. Residential land use is 3% of the county or 23,668 acres. Vacant and unused lands cover 20,090 acres or almost 3% of the county. Reclaimed land, areas of the county that were once used for surface strip mining but are in the process of being reverted back to open space, cover only 1% of the landscape with 12,996 acres. Transportation also covers 1% of the county with 12,051 acres. All other land uses combined, as described by the graph and table below, cover the remaining 3% of the land area within Centre County.

Centre County 2008 Land Use Categories by Percent of Total Acres



| CATEGORY | ACRES | CATEGORY | ACRES |
|--------------------|---------|--------------------|--------|
| Agriculture | 108,344 | Reclaimed Land | 12,996 |
| Commercial | 2,316 | Recreation | 3,555 |
| Communications | 46 | Residential | 23,668 |
| Forests | 516,717 | Transportation | 12,051 |
| Industrial | 783 | Utility | 1,820 |
| Mined Land | 3,272 | Vacant Structure | 56 |
| Mixed Use | 23 | Vacant/Unused Land | 20,090 |
| Public/Semi-Public | 2,289 | Water | 3,958 |

All other land use categories whose total acres equal 3% of the county's land area are:

| | |
|------------------|------|
| Water | 0.5% |
| Recreation | 0.5% |
| Mixed Use | 0.4% |
| Commercial | 0.4% |
| Public | 0.3% |
| Utility | 0.3% |
| Industrial | 0.2% |
| Vacant Structure | 0.2% |
| Communications | 0.1% |
| Mined Land | 0.1% |


County-wide land use by category and subcategory: acreages and percent

| CATEGORY | % of total Land Use | SUBCATEGORY | Sub Acres | % of category | Total Acres |
|-------------------------------|---------------------|---------------------------------|-----------|---------------|----------------|
| Agriculture | 15% | N/A | | N/A | 108,344 |
| Commercial | 0.4% | | | | 2,316 |
| | | Heavy Commercial | 1,022 | 44% | |
| | | Retail | 567 | 24% | |
| | | Services | 727 | 32% | |
| Communications | 0.4% | | | | 46 |
| | | Cell Tower | 9 | 20% | |
| | | Radio Tower | 6 | 13% | |
| | | Telephone Communications | 17 | 37% | |
| | | Television | 14 | 30% | |
| Forests | 74% | | | | 516,717 |
| | | Open Forest | 514,563 | 99% | |
| | | Urban Forest | 2,154 | 1% | |
| Industrial | 0.2% | | | | 783 |
| | | Light Industry | 380 | 49% | |
| | | Heavy Industry | 403 | 51% | |
| Mined Land | 0.1% | | | | 3,272 |
| | | Gas Wells | 745 | 23% | |
| | | Quarry | 1,209 | 37% | |
| | | Strip Mine | 1,318 | 40% | |
| Mixed Use | 0.4% | | | | 23 |
| | | M1(Residential-Commercial) | 21 | 91% | |
| | | M2(Commercial Mixed) | 2 | 9% | |
| Public or Semi-Public | 0.3% | | | | 2,289 |
| | | Churches and Cemeteries | 571 | 25% | |
| | | Education | 760 | 33% | |
| | | Government | 532 | 23% | |
| | | Miscellaneous Services | 375 | 17% | |
| | | Service Institutions | 51 | 2% | |
| Reclaimed Land | 1% | N/A | | N/A | 12,996 |
| Recreation | 0.5% | N/A | | N/A | 3,555 |
| Residential | 3% | | | | 23,688 |
| | | Mobile Home | 82 | 1% | |
| | | Multi-Family Residence | 785 | 3% | |
| | | Single Family Conventional | 22,495 | 94% | |
| | | Two to Four Family Residence | 326 | 2% | |
| Transportation | 1% | | | | 12,051 |
| | | Airport | 548 | 5% | |
| | | Median | 1,505 | 12% | |
| | | Parking | 1,015 | 8% | |
| | | ROW | 350 | 3% | |
| | | Railways | 239 | 2% | |
| | | Roads | 8,393 | 70% | |
| | | Terminal | 1 | <1% | |
| Utility | 0.3% | | | | 1,820 |
| | | Pipe Line | 254 | 14% | |
| | | Power Generating Station | 45 | 3% | |
| | | Power Line | 1,168 | 64% | |
| | | Solid Waste Processing/Disposal | 111 | 6% | |
| | | Water Utility | 242 | 13% | |
| Vacant Structure | 0.2% | | | | 56 |
| | | Commercial | 39 | 70% | |
| | | Industrial | 10 | 18% | |
| | | Public or Semi-Public | 3 | 5% | |
| | | Residential | 4 | 7% | |
| Vacant and Unused Land | 3% | N/A | | N/A | 20,090 |
| Water | 0.5% | N/A | | N/A | 3,958 |
| 100% | | Total land use acres | | | 712,004 |

The table on page 6 breaks out each land use category by total acres and percentage of the total acres county-wide. The percentage of total land use by category is listed in the first column after the category name. The total category acres is listed on the far right column. Acreages and percentages for the subcategories are listed under the headings **Sub Acres** and **% of category**, respectfully. For example, under the commercial land use category, there are 3 subcategories: heavy commercial, services, and retail. The total acres for county-wide commercial land use is listed as 2,316 acres. For the heavy commercial subcategory, the Sub Acres (or *subcategory acres*) is 1,022. In the next column over is listed the figure 44%. That 44% figure means that heavy commercial land uses make up 44% of total commercial land use county-wide. Categories which have no subcategories have an N/A (not-applicable) listed under the subcategory heading. All figures have been listed to the nearest whole-acre or nearest whole percent.

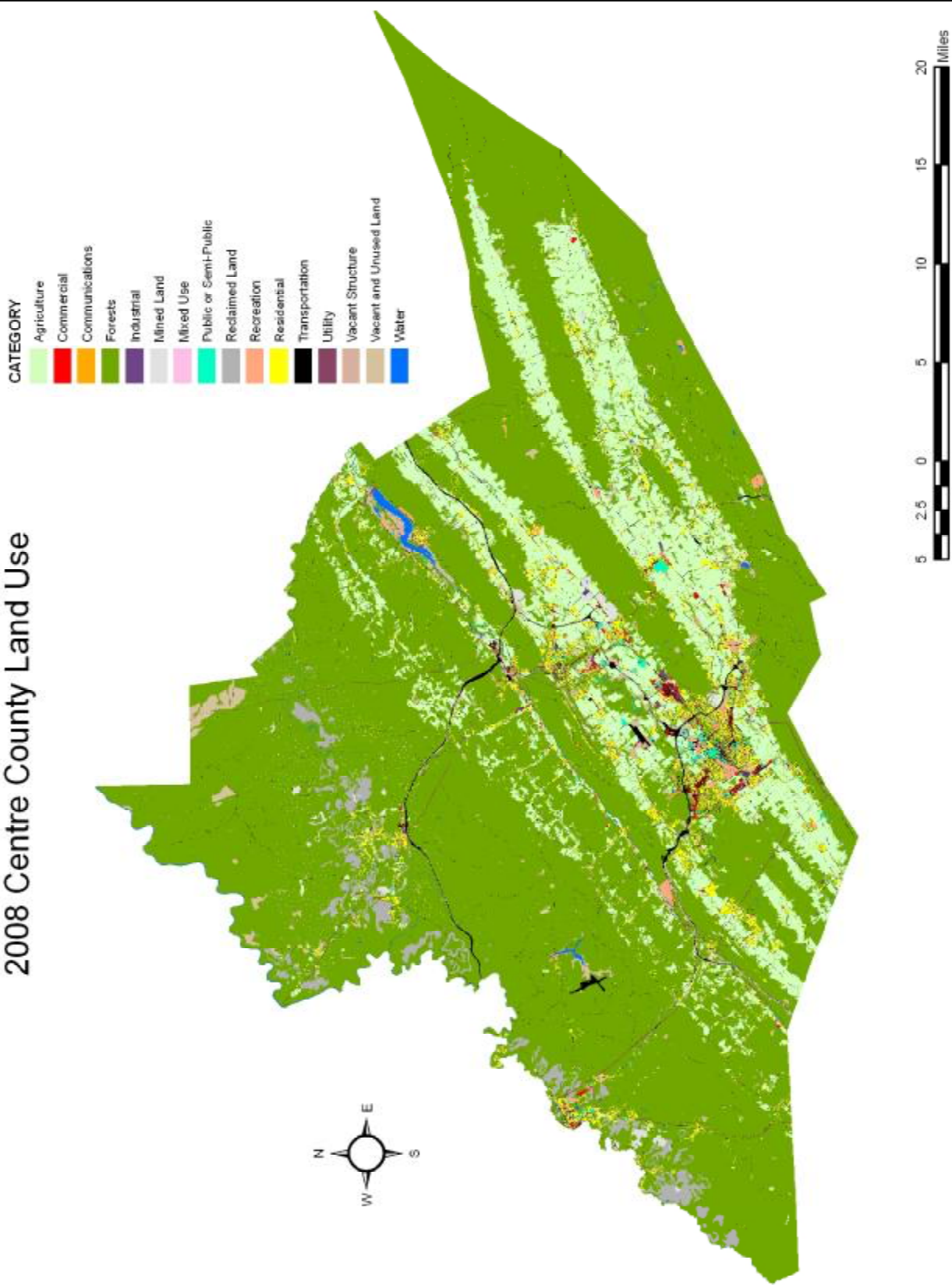
Land Use Survey: Comparing County-wide figures from 2002 and 2008

For the purposes of this chapter, we will compare land use figures for 2002 and 2008 only. Although land use survey data is available back to the year 1975, this chapter aims to show you the most current changes and trends in Centre County land use. All land use information is available on file at the Centre County Planning Office.

| CATEGORY | 2002 acres | 2008 acres | Acres (+/-) | |
|------------------------|------------|------------|-------------|--|
| Vacant and Unused Land | 17,231 | 20,090 | 3,669 |  |
| Forests* | 514,429 | 516,716 | 2,287 | |
| Utility* | 789 | 1,820 | 1,031 | |
| Mined Land | 2,774 | 3,272 | 498 | |
| Water | 3,628 | 3,957 | 329 | |
| Recreation | 3,241 | 3,555 | 314 | |
| Commercial | 2,104 | 2,316 | 212 | |
| Public | 2,110 | 2,289 | 179 | |
| Reclaimed | 12,845 | 12,996 | 151 | |
| Industrial | 728 | 783 | 55 | |
| Mixed Uses | 1 | 23 | 22 | |
| Communications | 44 | 46 | 2 | |
| Vacant Structure | 73 | 56 | -17 | |
| Residential* | 24,189 | 23,688 | -501 | |
| Agriculture | 109,850 | 108,344 | -1506 | |
| Transportation* | 15,448 | 12,051 | -3397 | |

In the table above, the categories are listed in order by those which *gained* the most acres of land to those categories which *lost* the most acres of land. Categories denoted with an asterisk * had significant acreage changes (either + or -) between 2002 and 2008 either due to changes in the overall land use survey methodology for 2008 or features in those categories were not captured in the 2002 land use survey. Forested areas gained over 2,000 acres because many of the forest roads rights-of-way were adjusted to fit the road edge-of-pavement thus increasing the amount of calculated forested land use. The utility category gained over 1,000 acres because several of the utility rights-of-way not visible in prior aerial photography were captured in the 2008 survey. For those categories which lost acres, the residential category for suburban areas of the county decreased because the forested areas within residential land use were captured and tagged 'urban forest' (this also lead to the significant increase in overall forest land). Transportation overall decreased because again, those road rights-of-way were rescaled to fit up to the edge-of-pavement and the center median strips, when visible on the aerial photography, were captured. Although the numbers for 2008 reflect decreases or increases that seem artificial, the resulting land use data is by far more accurate than those surveys performed in 2002 and 1995.

2008 Centre County Land Use

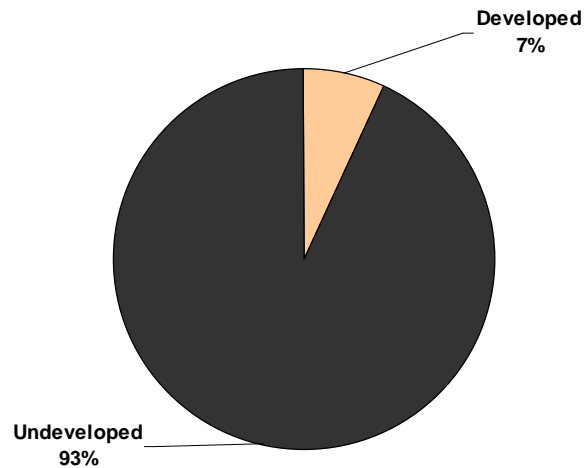


Developed versus undeveloped land uses in Centre County

Tracking the amount of developed and undeveloped lands and where they occur in the landscape is another function of the land use dataset. Land use can also be compared when we look at the total development throughout the county. Land uses which contain infrastructure either above or below ground, are being permanently altered, or contain abandoned structures are **developed lands**. The following categories are developed: residential, commercial, industrial, mining, transportation, utilities, vacant structures, recreation, public or semi-public structures, and communications. Other land uses which, for the most part, are left in a natural state, in the process of being reverted back to a former use, or provide open space are **undeveloped lands**. The following land use categories are undeveloped: agriculture, forests, reclaimed land, vacant land, and water. Another difference between developed and undeveloped land is the amount of permeable or impermeable surface that a particular land use contains. This point is

important, especially to urban planners, when stormwater runoff needs to be managed. During heavy rains, rainwater will be easily absorbed into a permeable surface — an open field, for example — allowing the ground water table to be recharged or 'refilled'; this process allows water to re-enter local aquifers which are the primary drinking water source for many communities. However, if rain water can not permeate a hard surface, like a paved parking lot, it becomes stormwater runoff. Stormwater runoff in urban areas must be contained and diverted because it can create localized flooding hazards and damages. Rain water that can not penetrate the ground will likely not reach the ground water table, unable to recharge the local aquifer. Stormwater systems are designed to make sure that rain water is diverted to a place in the landscape where it can be reabsorbed into the ground.

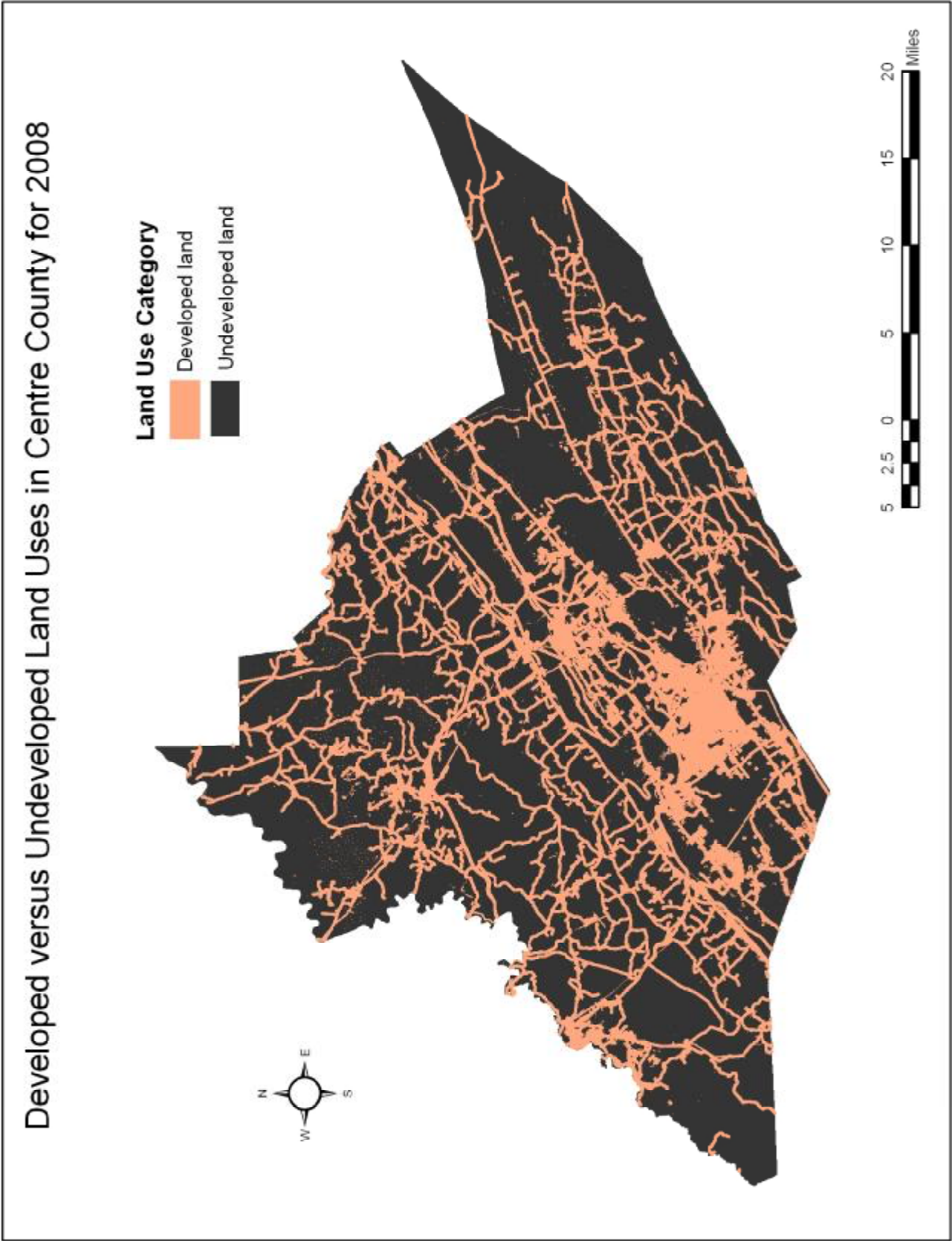
Developed versus Nondeveloped Land Uses by Percent for Centre County in 2008



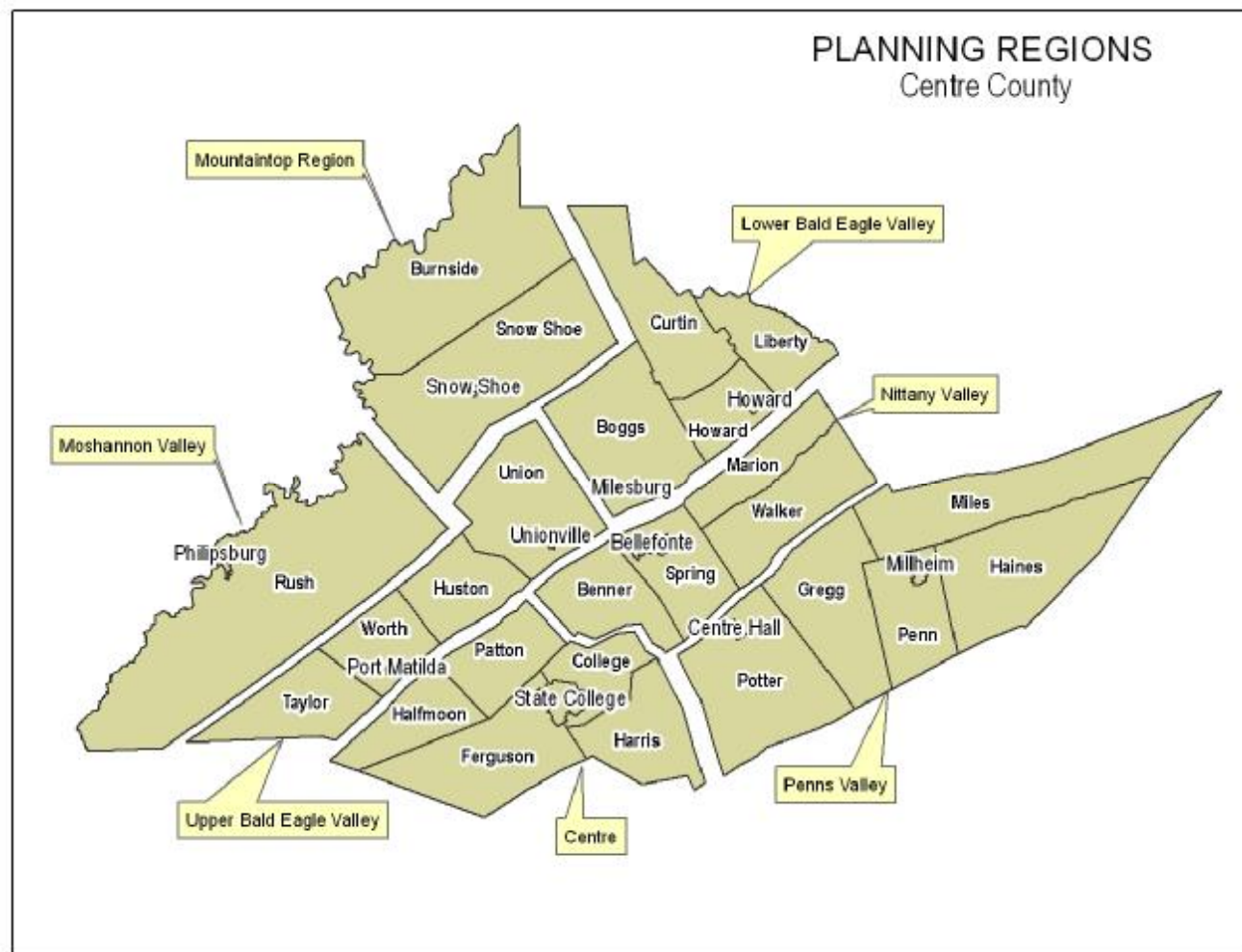
Publicly owned land uses in Centre County

| OWNER | OWNER ACRES | FOREST LAND USE | | OTHER USES | | WATER USE | | AGRICULTURAL LAND USE | | VACANT LAND USE | |
|---------------------------------------|----------------|-----------------|------------|---------------|-------------|--------------|------------|-----------------------|-------------|-----------------|------------|
| | | acres | percent(%) | acres | percent (%) | acres | percent(%) | acres | percent (%) | acres | percent(%) |
| Bureau of Forestry (State Forest) | 158,830 | 144,535 | 91 | 7,942 | 5 | 4,765 | 3 | N/A | 0 | 1,588 | 1 |
| Game Commission (State Gameland) | 66,843 | 61,496 | 92 | 4,010 | 6 | 668 | 1 | N/A | 0 | 668 | 1 |
| Penn State University | 10,837 | 4,118 | 38 | 2,167 | 20 | N/A | 0 | 3,685 | 34 | 542 | 5 |
| Army Corps of Engineers (Federal) | 6,320 | 3,792 | 60 | 316 | 5 | 1,600 | 25 | N/A | 0 | 632 | 1 |
| Rockview State Correctional Institute | 6,200 | 3,800 | 61 | 496 | 8 | N/A | 0 | 1,610 | 26 | 248 | 4 |
| Bureau of State Parks | 5,830 | 5,247 | 90 | 466 | 8 | 583 | 1 | N/A | 0 | 583 | 1 |
| Fish & Boat Commission | 664 | 425 | 64 | 27 | 4 | 199 | 30 | N/A | 0 | 13 | 2 |
| PennDot | 293 | 9 | 3 | 237 | 81 | N/A | 0 | 6 | 2 | 12 | 4 |
| TOTALS | 255,817 | 223,422 | 87 | 15,661 | 6 | 7,815 | 3 | 5,301 | 2 | 4,286 | 2 |

State-owned entities and state-affiliated organizations own over 255,000 acres in Centre County. The Bureau of Forestry, which falls under the Department of Conservation and Natural Resources, has nearly 160,000 acres in holding within the state forests of Bald Eagle, Moshannon, Rothrock, and Sproul. The majority of the land use in state forest is forest lands, although other land uses occur including utility rights-of-way, natural gas wells, and reclaimed lands. The Pennsylvania Game Commission owns nearly 67,000 acres in the state game holdings of 33, 60, 92, 100, 103, 176, 295 and 323. The majority of the land use in state game lands is also forest. Penn State University, which owns over 10,000 acres, devotes 30% of its land to agricultural in the form of research fields. Penn State also owns several forested tracks and main campus, which continues to expand west, contains the majority of the university's infrastructure. The State Correctional Institute at Rockview owns 6,200 acres with forest and agricultural land uses comprising the most acreage. The Army Corps of Engineers owns the land surrounding Bald Eagle State Park and Foster Joseph Sayers Lake. The Bureau of State Parks owns a total of 5,830 acres in the state parks of Bald Eagle, Black Moshannon, Poe Paddy, Poe Valley, Penn Roosevelt, and McCall Dam. The Fish and Boat Commission is the only entity whose majority of land use is devoted to water; reason being, these properties contain either the fish hatcheries containing the stock fish holding tanks or are adjacent to a major water body. The Pennsylvania Department of Transportation (PennDOT) owns several small properties throughout the county where road salt and equipment is stored.



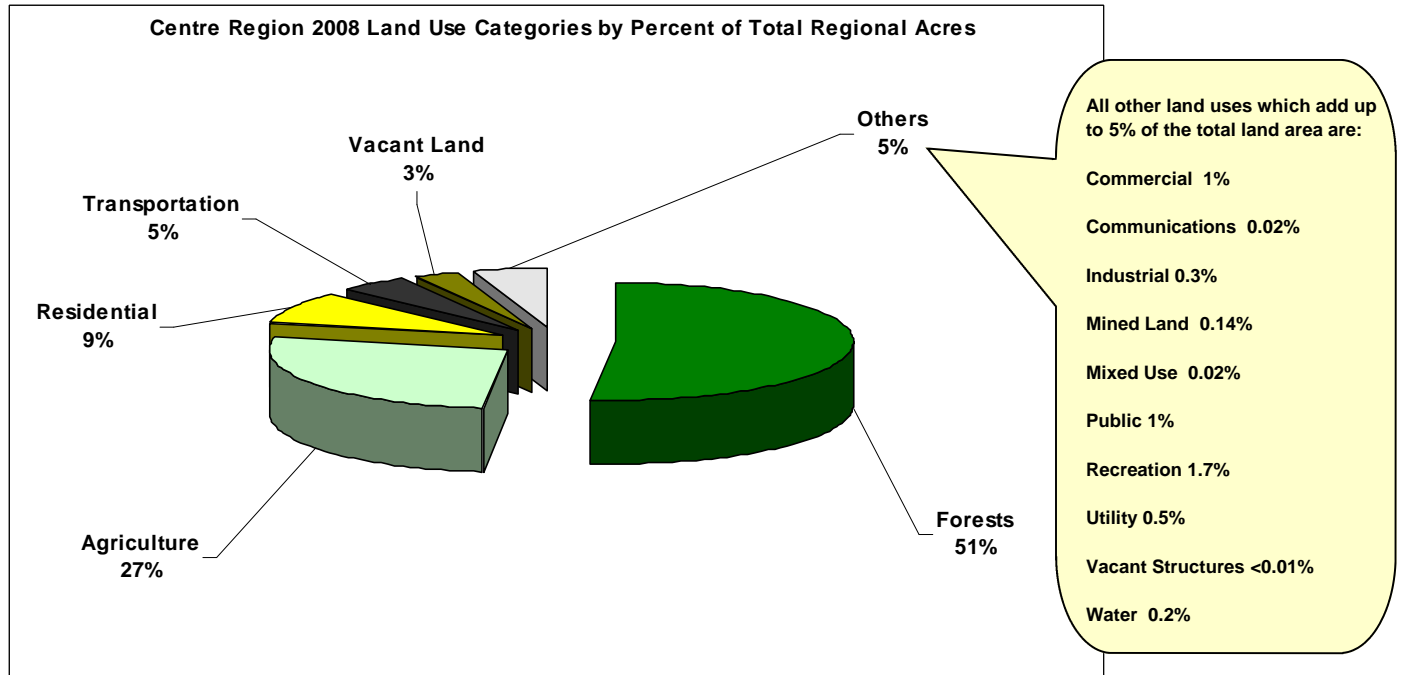
Land Use by Planning Regions



For the remainder of the chapter, the Centre County land use data is will be presented on a regional basis. The graphic above shows how the municipalities are broken out into their respective planning regions. If you want to know more about land use for a specific township or borough, please contact the Centre County Planning and Community Development Office.

| | |
|---------------------------------|---------|
| CENTRE REGION..... | page 12 |
| LOWER BALD EAGLE VALLEY..... | page 13 |
| MOSHANNON VALLEY..... | page 14 |
| MOUNTAINTOP..... | page 15 |
| NIITTANY VALLEY..... | page 16 |
| PENNS VALLEY..... | page 17 |
| UPPER BALD EAGLE VALLEY..... | page 18 |
| Land Use Quick Facts Sheet..... | page 19 |
| Resources & Definitions..... | page 20 |

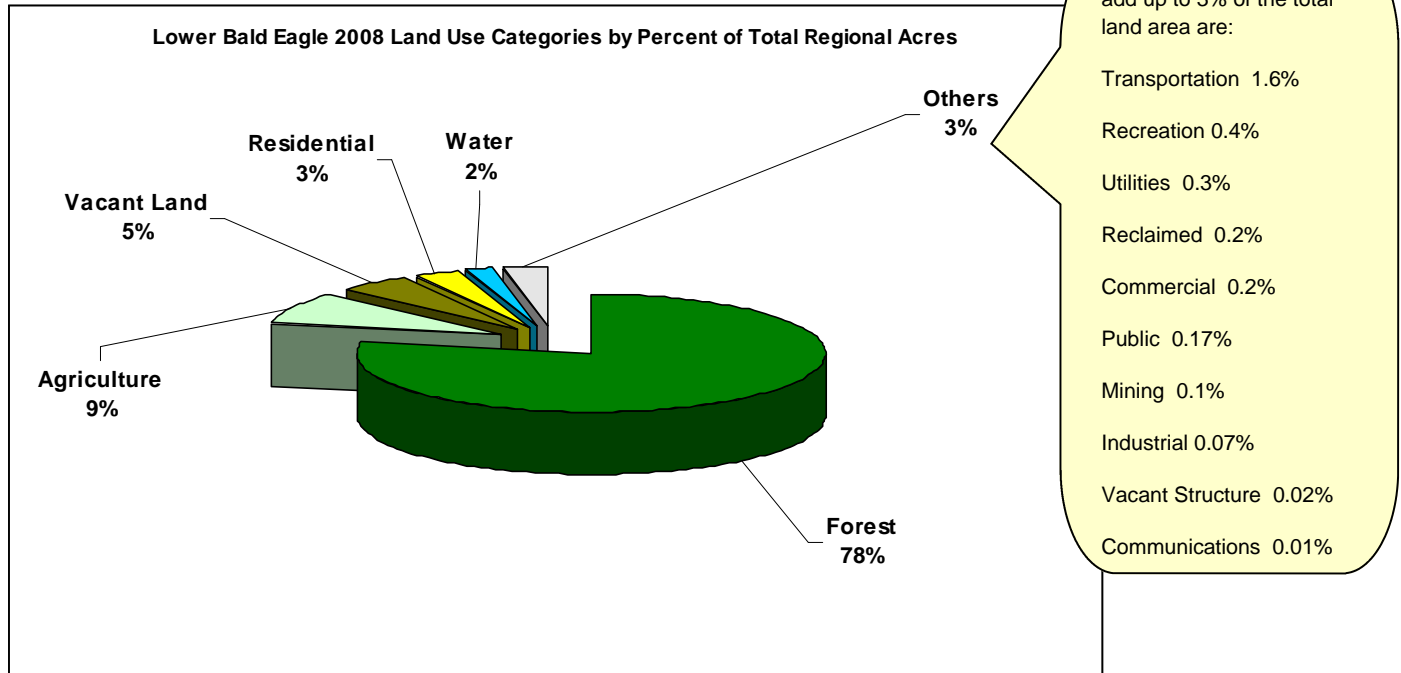
The Centre Region



The **Centre Region** is made up of State College Borough and the townships of College, Ferguson, Halfmoon, Harris, and Patton. Among the planning regions, the Centre Region contains the most residential land use in acres and by percent of total region acres. Residential land use in the region, as seen in the table below, did decrease but the acreage loss is due to the land use methodology used (see page 2). Despite the nationwide decrease in new home construction, the Centre Region has experienced residential growth. Permits submitted for new residences of all types has remained steady from year-to-year between 2002 and 2008, averaging about 300 permits annually. Residential land use in this region will likely continue to increase as it is the most populated planning region. The Centre Region has the most commercial land use by acres among all planning regions. Commercial land uses grew 10% since 2002. Industrial land uses have decreased just slightly. Industrial land uses, especially those related to research and development, are expected to increase within this region over the next decade. Recreational land use increased by 1%. The purchase of a 63 acre parcel by Centre Region Parks and Recreation and the continued inclusion of open space in new residential developments will increase recreational land use. Over half of the Centre Region remains in forested land with 330 acres owned by the Pennsylvania Game Commission in State Game Land 176, also known as Scotia Barrens. Centre Region ranks 2nd among the planning regions in agricultural land use with 25,600 acres. Agricultural land use has decreased 770 acres or 3% since 2002. *Total development represents by acres and percent the land use categories which are considered to be developed lands.*

| Changes from 2002 to 2008 | | | ACRES | |
|---------------------------|---------------|-------------|---------------|---------------|
| LAND USE | ACRES (+/-) | PERCENT (%) | 2008 | 2002 |
| Residential | -1,503 | -15.1 | 8,430 | 9,933 |
| Commercial | 87 | 10 | 953 | 866 |
| Industrial | -1 | -0.03 | 304 | 305 |
| Vacant Structure | -12 | -92.3 | 1 | 13 |
| Mined Land | -3 | -2.8 | 138 | 141 |
| Transportation | -52 | 1.1 | 4,455 | 4,507 |
| Communications | -1 | -4.3 | 22 | 23 |
| Utility | 38 | 8.3 | 506 | 467 |
| Public or Semi-Public | 91 | 10.5 | 941 | 850 |
| Recreation | 6 | 0.36 | 1,640 | 1,634 |
| TOTAL DEVELOPMENT | -1,349 | -7.2 | 17,390 | 18,739 |
| Agriculture | -769 | -2.9 | 25,645 | 26,415 |
| Forested | 1,952 | 4 | 49,713 | 47,761 |
| Reclaimed Land | 0 | 0 | 0 | 0 |
| Vacant Land | -442 | -12.5 | 3,082 | 3,524 |
| Water | -1 | -0.7 | 254 | 255 |
| TOTAL ACRES | | | 96,084 | 96,689 |

The Lower Bald Eagle Valley Region



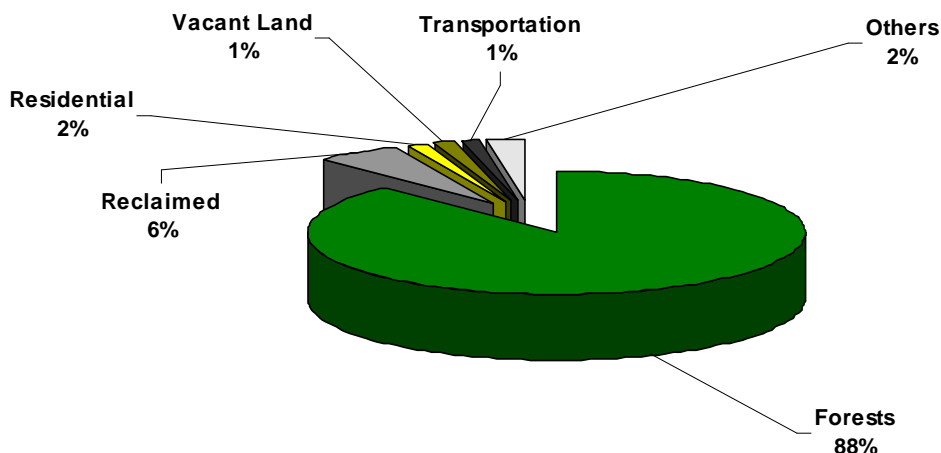
The **Lower Bald Eagle Valley Region** is made up of the boroughs of Howard and Milesburg, and the townships of Boggs, Curtin, Howard, and Liberty. Residential land use is 3% of the total regional land use at 2,243 acres. Most residential land uses are concentrated in the boroughs. Forecasting data predicts that residential land use growth will occur primarily within Boggs Township near Milesburg. Commercial land uses also increased by 4.5% since 2002, which includes new commercial retail along Alternate Route 220 between the village of Wingate to the Interstate 80 interchange. Industrial land use increased by almost 3 acres; most increases to industrial uses in this region were by way of building expansions and not actual new developments. Land uses related to mining and mineral extraction increased by 20% as the northern tiers of Boggs and Curtin Townships had new natural gas wells drilled. Mined land is expected to increase within Lower Bald Eagle as more natural gas exploration expands within the Marcellus Shale formation. The Lower Bald Eagle Valley Region remains heavily forested at 69,483 acres or 78% of the total region land area. Of the forested land, approximately 33,000 acres is state-owned in game land, state forest and state park land.

The Lower Bald Eagle Valley ranks first among all planning regions in land area covered by water. Foster Joseph Sayers Lake, adjacent to Bald Eagle State Park, covers approximately 1,600 acres and is nearly 7 miles long. Although the water level fluctuates throughout the year, it remains the largest man-made water body in Centre County. *Total development represents by acres and percent the land use categories which are considered to be developed lands.*

| Changes from 2002 to 2008 | | | ACRES | |
|---------------------------|-------------|-------------|---------------|---------------|
| LAND USE | ACRES (+/-) | PERCENT (%) | 2008 | 2002 |
| Residential | 97 | 4.5 | 2,243 | 2,146 |
| Commercial | 12 | 7.3 | 176 | 164 |
| Industrial | 3 | 4.5 | 69 | 66 |
| Vacant Structure | 4 | 16 | 22 | 18 |
| Mined Land | 29 | 20 | 174 | 145 |
| Transportation | -660 | -0.31 | 1,429 | 2,089 |
| Communications | 1 | 100 | 2 | 1 |
| Utility | 214 | 151.7 | 355 | 141 |
| Public or Semi-Public | 7 | 4.7 | 155 | 148 |
| Recreation | 1 | 0.9 | 423 | 422 |
| TOTAL DEVELOPMENT | -292 | -5.4 | 5,048 | 5,340 |
| Agriculture | 149 | 1.9 | 7613 | 7,464 |
| Forested | -77 | -0.11 | 69,483 | 69,560 |
| Reclaimed Land | 3 | 0.9 | 218 | 215 |
| Vacant Land | 686 | 16 | 4,814 | 4,130 |
| Water | 577 | -27.2 | 1,541 | 2,118 |
| TOTAL ACRES | | | 88,717 | 88,756 |

The Moshannon Valley Region

Moshannon Valley Region 2008 Land Use Categories by Percent of Total Regional Acres



All other land uses which add up to 2% of total land use are:

Agriculture 0.2%
 Commercial 0.2%
 Communications 0.1%
 Industrial 0.01%
 Mined Land 0.4%
 Public 0.1%
 Recreation 0.2%
 Utility 0.2%
 Vacant Structures 0.1%
 Water 0.4%

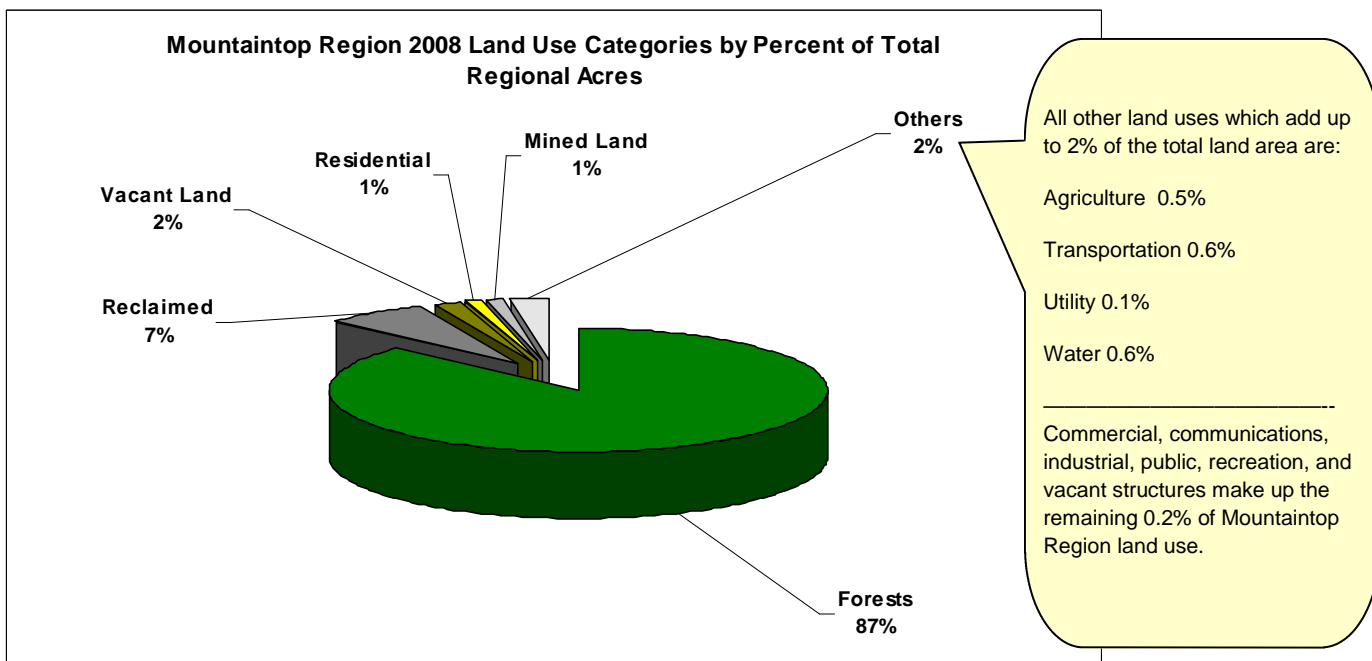
The **Moshannon Valley Region** is made up of Philipsburg Borough and Rush Township. South Philipsburg Borough became part of Rush Township in 2008. For survey purposes, historical land use data for South Philipsburg was tallied with Rush Township. Residential land use increased by 14% (180 acres) since 2002 and continued residential growth is expected south of Philipsburg on both sides of State Route 350. Philipsburg is nearly built-out with few infill lots remaining so new home construction is occurring outside of the borough. Most new homes constructed in the last decade were single family dwelling units. This region experienced the most commercial and industrial growth among all planning regions due in large part to the Moshannon Valley Economic Development Business Park. Commercial land use and industrial land use increased 40% and 43%, respectively. Both commercial and industrial land uses are forecasted to increase as the business park contains unsold lots and the economic development authority plans to expand into adjacent land. Mined land increased by 9% as the natural gas well exploration in the Marcellus Shale formation continues. The Moshannon Valley Region ranks 2nd in reclaimed land use among the planning regions. The western edge of Rush Township was surface mined extensively in the 1970s and the soil surface reclaimed throughout the 1990s.

Moshannon Valley is heavily forested with nearly 80% of forested land use (approximately 66,700 acres) in state-ownership.

Total development represents by acres and percent the land use categories which are considered to be developed lands.

| Changes from 2002 to 2008 | | | ACRES | |
|---------------------------|-------------|-------------|---------------|---------------|
| LAND USE | ACRES (+/-) | PERCENT (%) | 2008 | 2002 |
| Residential | 181 | 14 | 1,464 | 1,283 |
| Commercial | 75 | 40 | 186 | 111 |
| Industrial | 10 | 43 | 23 | 13 |
| Vacant Structure | 1 | 0.1 | 10 | 9 |
| Mined Land | 64 | 9 | 665 | 601 |
| Transportation | -360 | -0.35 | 1,001 | 1,361 |
| Communications | 1 | 0.1 | 10 | 9 |
| Utility | 245 | 85 | 286 | 41 |
| Public or Semi-Public | 26 | 19 | 131 | 105 |
| Recreation | 104 | 49 | 209 | 105 |
| TOTAL DEVELOPMENT | 347 | 7.53 | 3,985 | 3,638 |
| Agriculture | 72 | 22 | 322 | 250 |
| Forested | -2,448 | -0.09 | 83,980 | 86,428 |
| Reclaimed Land | 92 | 1.7 | 5,306 | 5,214 |
| Vacant Land | 143 | 4.2 | 1,337 | 1,280 |
| Water | 198 | 39 | 498 | 300 |
| TOTAL ACRES | | | 95,428 | 97,211 |

The Mountaintop Region



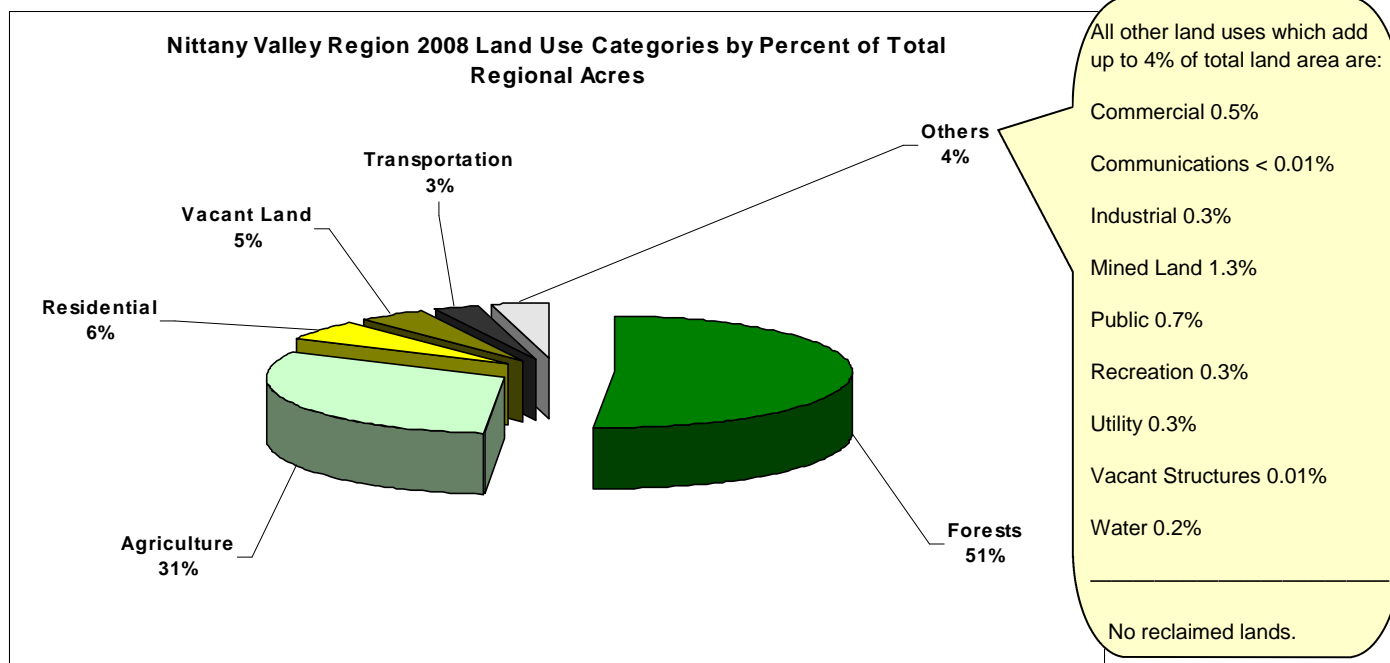
The **Mountaintop Region** is made up of Snow Shoe Borough and the townships of Burnside and Snow Shoe. This region contains the least amount of residential land use among all planning regions. Residential land use increased 11.8% since 2002. Vacant lots within residential zoning districts in Snow Shoe Borough along with unsold lots in Pine Glen have residential infill potential. However, residential growth in this region is limited by the public water and sewer service extent and proximity to state-owned lands. Seasonal residential homes (those homes occupied less than 50% of the year) are abundant in this region but they do not count in the residential land use category. Commercial and industrial land uses both increased as new businesses were established next to the Interstate 80 interchange. There remains several vacant lots within commercial and industrial zoning near the interchange which are expected to be developed in the next decade. Mined land increased by 36%, gaining 432 acres since 2002. Of all major land use categories, mining and mineral extraction is expected to change the landscape of the Mountaintop Region. Natural gas exploration has already increased the number of new well sites to nearly 30. Newer drilling methods and roving equipment which require more acreage for operations will nearly quadruple the acres necessary to access drilling sites.

The amount of forest cover needed to be cleared to bring in drilling equipment and other natural gas well facilities can be as much as 5 acres per site. Smaller collection pipelines will be installed to transfer natural gas from the well sites to the main high pressure transmission line which transects the county.

Total development represents by acres and percent the land use categories which are considered to be developed lands.

| Changes from 2002 to 2008 | | | ACRES | |
|----------------------------------|--------------------|--------------------|----------------|----------------|
| LAND USE | ACRES (+/-) | PERCENT (%) | 2008 | 2002 |
| Residential | 151 | 11.8 | 1,278 | 1,127 |
| Commercial | 6 | 7.4 | 81 | 75 |
| Industrial | 20 | 37 | 54 | 34 |
| Vacant Structure | 1 | 0.01 | 6 | 5 |
| Mined Land | 432 | 36 | 1,198 | 766 |
| Transportation | -382 | -48 | 793 | 1,175 |
| Communications | 0 | 0 | 3 | 3 |
| Utility | 193 | 94 | 205 | 12 |
| Public or Semi-Public | 5 | 5.9 | 68 | 63 |
| Recreation | -1 | -2.2 | 44 | 45 |
| TOTAL DEVELOPMENT | 425 | 11.4 | 3,730 | 3,305 |
| Agriculture | 13 | 1.7 | 711 | 698 |
| Forested | 1,549 | 1.5 | 97,716 | 96,167 |
| Reclaimed Land | 87 | 1.1 | 7,472 | 7,385 |
| Vacant Land | 250 | 12.8 | 1,949 | 1,699 |
| Water | 587 | 70 | 799 | 212 |
| TOTAL ACRES | | | 112,377 | 109,464 |

The Nittany Valley Region



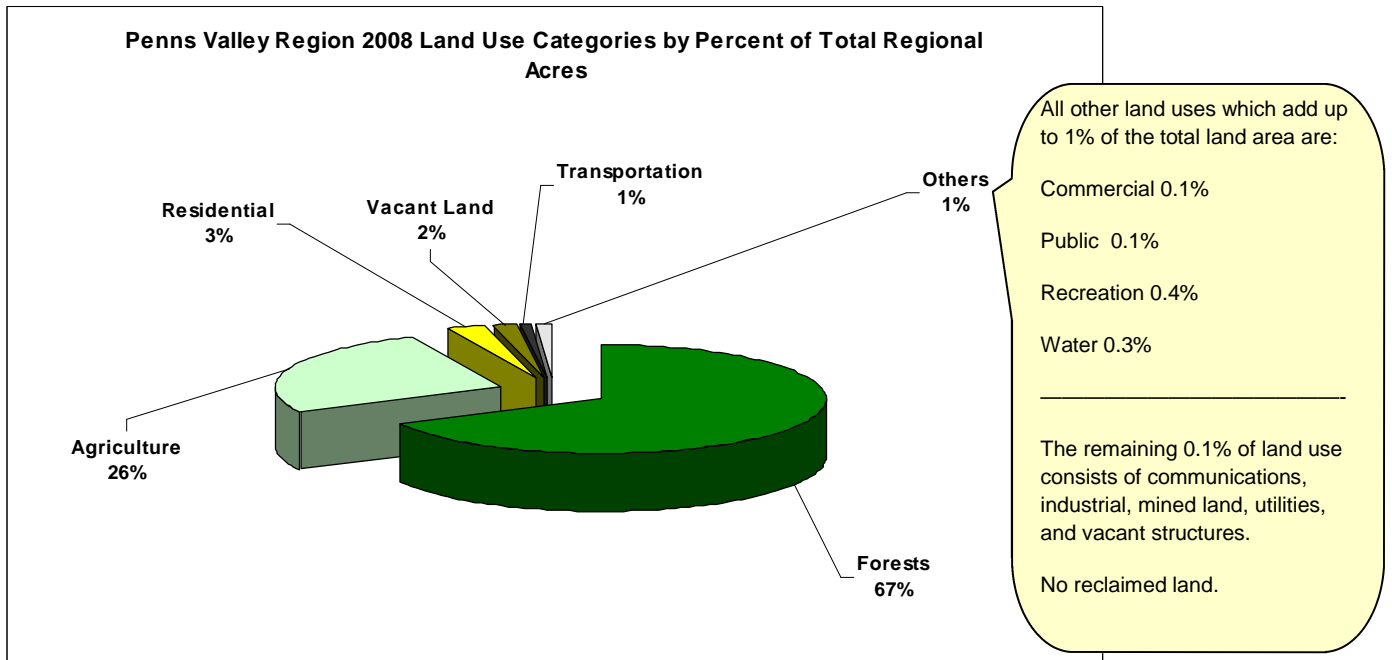
The **Nittany Valley Region** is made up of Bellefonte Borough and the townships of Benner, Marion, Spring and Walker. Residential land use increased by 7.8% and continued residential growth is expected along the State Route 64 corridor in Walker Township. This area has 3 planned subdivisions with a forecasted build-out of up to 200 single family dwelling units. Both commercial and industrial acres increased. Commercial land use increased in Walker Township around the Zion area whereas industrial land uses increased in Benner Township within the Penn Eagle Industrial Park and the Benner Commerce Park adjacent to the Interstate 99 interchange. Both commercial and industrial land uses are expected to grow especially along the State Route 150 corridor which connects to Interstate 99. Mined land increased 4.5% as limestone surface mining operations expanded in Marion and Spring Townships. This region is not forecasted to be affected by the surge in natural gas well exploration; however, the demand for limestone for road construction and development may result in expanded mined land uses. The largest land use increase was in utilities where 118 acres was added when the natural gas pipeline was installed. Agricultural land uses decreased 4% or 1,065 acres. This reduction in agricultural lands is due in large part to the conversion of farm

land for large residential subdivisions. Forested land uses decreased 7.5% due to areas being cleared for new homes. The forested residential subdivisions, along the Marion-Walker Township boundary on the Bald Eagle ridge top, remain heavily wooded.

Total development represents by acres and percent the land use categories which are considered to be developed lands.

| Changes from 2002 to 2008 | | | ACRES | ACRES |
|---------------------------|---------------|-------------|---------------|---------------|
| LAND USE | ACRES (+/-) | PERCENT (%) | 2008 | 2002 |
| Residential | 341 | 7.8 | 4,358 | 4,017 |
| Commercial | 9 | 1.9 | 421 | 412 |
| Industrial | 18 | 7.2 | 249 | 231 |
| Vacant Structure | -8 | -45 | 12 | 20 |
| Mined Land | 48 | 4.5 | 1,038 | 990 |
| Transportation | -2,271 | -51 | 2,179 | 4,450 |
| Communications | 0 | 0 | 4 | 4 |
| Utility | 118 | 51 | 231 | 113 |
| Public or Semi-Public | 50 | 9 | 551 | 501 |
| Recreation | 17 | 5.7 | 294 | 277 |
| TOTAL DEVELOPMENT | -1,678 | -8.9 | 9,337 | 11,015 |
| Agriculture | -1,065 | -4 | 23,422 | 24,487 |
| Forested | -3,181 | -7.5 | 38,780 | 41,961 |
| Reclaimed Land | 0 | 0 | 0 | 0 |
| Vacant Land | 1,043 | 28 | 3,690 | 2,647 |
| Water | -47 | -22 | 171 | 218 |
| TOTAL ACRES | | | 75,400 | 80,328 |

The Penns Valley Region

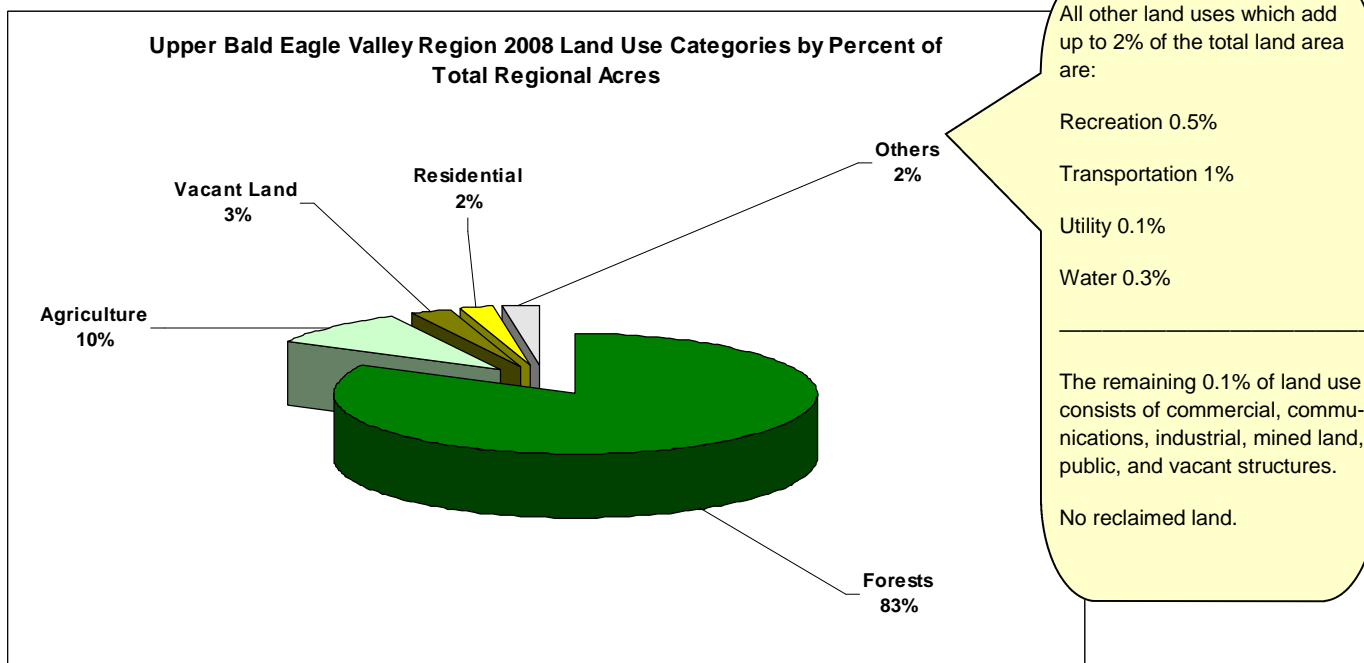


The **Penns Valley Region** is made up of the boroughs of Centre Hall and Millheim, and the townships of Gregg, Haines, Miles, Penn, and Potter. Residential land use increased 2.7% or over 100 acres. Residential development is, for the most part, sporadic throughout Penns Valley with subdivisions near Centre Hall and the village of Spring Mills in Gregg Township. Residential development is forecasted to grow at a steady rate through 2040 with 2 larger subdivisions planned in Potter Township; residential development will otherwise come from existing parcel split-offs, especially in eastern Penns Valley. Some infill potential for new residences is available in Centre Hall Borough and the village of Aaronsburg. Both commercial and industrial land uses have increased. Commercial land uses increased 2.7% while industrial land uses increased 3%; neither land use gained many acres. Commercial development around Old Fort at the intersection of State Routes 45 and 144 occurred and available land zoned commercial in that area is forecasted to be developed through 2030. The same area also has available acres zoned industrial which are forecasted to be developed. The potential for commercial land use growth can also be found along US Route 322 in Potter Township near Tusseyville. The Penns Valley Region is 67% forested and 26% of the total land area is used for agriculture. Agriculture land use decreased 186 acres in this region between 2002 and 2008. Between the 3 planning regions with the most agricultural land - Centre, Nittany Valley and Penns Valley - Penns Valley has lost the least amount of agricultural lands.

Total development represents by acres and percent the land use categories which are considered to be developed lands.

| Changes from 2002 to 2008 | | | ACRES | |
|----------------------------------|--------------------|--------------------|----------------|----------------|
| LAND USE | ACRES (+/-) | PERCENT (%) | 2008 | 2002 |
| Residential | 111 | 2.7 | 4,218 | 4,107 |
| Commercial | 8 | 2.3 | 347 | 339 |
| Industrial | 2 | 3 | 70 | 68 |
| Vacant Structure | 1 | 0.9 | 6 | 5 |
| Mined Land | 34 | 36 | 124 | 90 |
| Transportation | -406 | -24 | 1,269 | 1,675 |
| Communications | 2 | 200 | 3 | 1 |
| Utility | 47 | 418 | 58 | 11 |
| Public or Semi-Public | -3 | -1 | 369 | 372 |
| Recreation | -32 | -5.2 | 602 | 634 |
| TOTAL DEVELOPMENT | -236 | -3.2 | 7,066 | 7,302 |
| Agriculture | -186 | -0.43 | 42,980 | 43,166 |
| Forested | 5,500 | 5.2 | 110,385 | 104,885 |
| Reclaimed Land | 0 | 0 | 0 | 0 |
| Vacant Land | 579 | 25 | 2,824 | 2,245 |
| Water | 81 | 20 | 483 | 402 |
| TOTAL ACRES | | | 163,738 | 158,057 |

The Upper Bald Eagle Valley Region



The **Upper Bald Eagle Valley Region** is made up of the boroughs of Port Matilda and Unionville, and the townships of Huston, Taylor, Union, and Worth. Residential land use increased over 11% since 2002. Within the boroughs, which are nearly built-out, few vacant lots remain for potential town infill. Denser residential growth is forecasted within Worth Township through 2020 while more sparse residential development is expected in Huston and Union Townships. The exception to that is Eagle Creek Community, a modular home subdivision west of Unionville. Eagle Creek is expected to add 100 homes through 2040. Both commercial and industrial land uses increased 15.7% and 9%, respectively. Commercial land use gained 22 acres which is due to the relocation and expansion of existing commercial businesses in this region; one prominent business venue in this region relocated because the completion of Interstate 99 required that the old structure be razed and a new building be constructed. The most notable land use change is the completion of the Interstate 99/US Route 220 corridor which crosses Taylor Township, by-passes Port Matilda Borough, and follows the same alignment as US 322 over Skytop Mountain at the Worth Township boundary. Utility rights-of-way not captured in the 2002 land use survey which were recorded for this survey reflect the large increase in the utility land use category. Forest land uses decreased over 11% in large part to the land area cleared for the completion of the Interstate 99/US 220 highway.

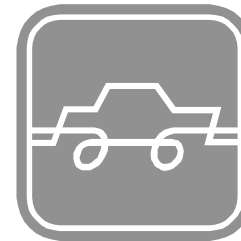
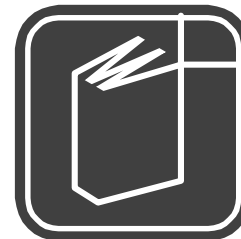
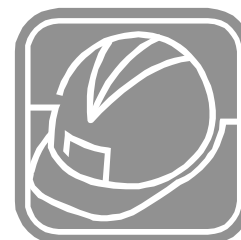
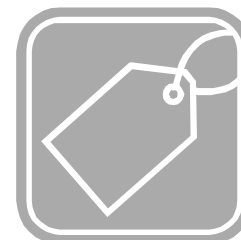
Total development represents by acres and percent the land use categories which are considered to be developed lands.

| Changes from 2002 to 2008 | | | ACRES | ACRES |
|---------------------------|-------------|--------------|---------------|---------------|
| LAND USE | ACRES (+/-) | PERCENT (%) | 2008 | 2002 |
| Residential | 181 | 11.42 | 1,755 | 1,576 |
| Commercial | 22 | 15.7 | 162 | 140 |
| Industrial | 1 | 9 | 12 | 11 |
| Vacant Structure | 0 | 0 | 2 | 2 |
| Mined Land | 5 | 20 | 25 | 20 |
| Transportation | -788 | -46 | 925 | 1,713 |
| Communications | 1 | 100 | 2 | 1 |
| Utility | 176 | 1,000 | 180 | 4 |
| Public or Semi-Public | 3 | 4.1 | 76 | 73 |
| Recreation | 305 | 1,000 | 339 | 24 |
| TOTAL DEVELOPMENT | -94 | -2.35 | 3,478 | 3,564 |
| Agriculture | 206 | 2.89 | 7,653 | 7,437 |
| Forested | -8,539 | -11.36 | 66,579 | 75,118 |
| Reclaimed Land | 0 | 0 | 0 | 0 |
| Vacant Land | 692 | 40.5 | 2,398 | 1,706 |
| Water | -61 | -22 | 215 | 276 |
| TOTAL ACRES | | | 80,323 | 80,667 |

-QUICK FACTS SHEET-

Centre County 2008 Land Use Survey

- **Forested** land use county-wide remains the dominant land use. 74% of Centre County is in forest land. Of the seven planning regions, the Moshannon Valley Region contains the greatest percentage of forest land (88%) but the Penns Valley Region contains the most forest land by acres (110,385).
- **Agricultural** land use county-wide is 15% of all land uses, totaling 108,344 acres. Nittany Valley contains the greatest percentage of agriculture land (31%) among all the planning regions but the Penns Valley Region has the most agricultural land by acres (42,980).
- **Residential** land use county-wide is 3% of the total land area or 23,668 acres. The Centre Region contains both the greatest percentage of land area and the most acres of land in residential use when compared to the other planning regions. 9% of the land use in the Centre Region is residential, totaling 8,430 acres.
- **Commercial** land use county-wide is 0.4% of the total land area or 2,316 acres. The Centre Region contains the greatest percentage of land area and the most acres of commercial land use compared with the other planning regions. 1% of the regional land use in the Centre Region is commercial, totaling 953 acres. All other planning regions contain less than 1% of land area in commercial use.
- **Industrial** land use county-wide is 0.2% of the total land area or 783 acres. The Centre and Nittany Valley Regions tie for the greatest percentage of land area in industrial uses at 3%; however, Centre Region has 304 acres and Nittany Valley has 249 acres of land used for industry.
- **Mining** land uses county-wide are 0.1% of the total land area or 3,272 acres. The Nittany Valley Region contains the greatest percentage of mined land (1.3%) among all the planning regions but the Mountaintop Region has the most mined land by acres (1,198).
- **Public or semi-public** land uses county-wide are 0.3% of the total land area or 2,289 acres. The Centre Region contains the greatest percentage of land area and the most acres of land in public or semi-public use compared with the other planning regions. 1% of the regional land use in the Centre Region is public or semi-public, totaling 941 acres.
- **Transportation** land uses county-wide are 1% of the total land area or 12,051 acres. The Centre Region contains the greatest percentage of land area and the most acres of land in transportation use. 5% of the regional land use in the Centre Region is for transportation, totaling 4,455 acres.





2008 Centre County Planning Opportunities

Prepared by:
Centre County Planning and Community
Development Office
420 Holmes Street
Bellefonte, PA 16823

Phone: 814-355-6791
Fax: 814-355-8661

E-mail: ealose@co.centre.pa.us

FIND THIS INFORMATION
ON THE WEB

[HTTP://WWW.CO.CENTRE.PA.US/151.ASP](http://www.co.centre.pa.us/151.asp)

The Centre County 2008 Land Use survey was made possible by a joint effort between staff at the Centre County Planning and Community Development Office and the Centre Regional Planning Agency, with technical support from the Centre County GIS Office.

Digital land use data from 1995 and 2002 is available upon request from the Centre County Planning and Community Development Office. Data is projected in State Plane PA North Zone, North American Datum 1983.

Land use data acres and percentages are approximations and should be used for planning purposes only. If land use data is going to be applied for research purposes, it should be noted that the land use boundaries were placed contingent upon the discretion and skill-level of the technicians who completed the dataset.

Major land use categories were adopted from guidelines set by the American Planning Association (APA). These guidelines include a standard cartographic symbology.

Resources

American Planning Association. <http://www.planning.org/>

Marcellus Shale formation and gas well drilling. <http://www.co.centre.pa.us/151.asp#marcellus/>

Subdivision and land development information. <http://www.co.centre.pa.us/planning/development.asp>

Transportation information. <http://www.ccmppo.net/>

The image at right depicts how GIS software allows a user to visualize land use changes by choosing to make one or more layers transparent. This image of the Port Matilda Borough area was created by overlaying the 2008 land use dataset at a 25% transparency option on the 2002 land use dataset. Using a standard cartographic symbology — assigning a specific color to each land use category — allows planners to see significant land use changes because those areas are 'discolored'; those areas not shaded by the standard hues for land use classification are easier to discern just by glancing over an area.

